



**LEGISLATIVE ASSEMBLY FOR THE AUSTRALIAN CAPITAL TERRITORY**

**STANDING COMMITTEE ON PLANNING, ENVIRONMENT  
AND TERRITORY AND MUNICIPAL SERVICES**

(Reference: [Annual and financial reports 2013-2014](#))

**Members:**

**MS Y BERRY (Chair)  
MR A COE (Deputy Chair)  
DR C BOURKE  
MR A WALL**

**TRANSCRIPT OF EVIDENCE**

**CANBERRA**

**TUESDAY, 16 DECEMBER 2014**

**Secretary to the committee:  
Mr H Finlay (Ph: 620 50129)**

**By authority of the Legislative Assembly for the Australian Capital Territory**

Submissions, answers to questions on notice and other documents, including requests for clarification of the transcript of evidence, relevant to this inquiry that have been authorised for publication by the committee may be obtained from the Legislative Assembly website.

## APPEARANCES

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## **Privilege statement**

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*Amended 20 May 2013*

**The committee met at 2.32 pm.**

Appearances:

Corbell, Mr Simon, Attorney-General, Minister for Police and Emergency Services,  
Minister for the Environment and Minister for Capital Metro

Environment and Planning Directorate

Ekelund, Ms Dorte, Director-General

Simmons, Mr Craig, Director, Construction Services

Kendall, Mr Matthew, Executive Manager, Catchment Management and Water  
Policy

Sibley, Mr Jon, Senior Manager, Energy Markets and Renewables

Walters, Mr Daniel, Senior Manager, Environment Protection, Environment  
Protection and Water Regulation, Environment Division

Mozqueira, Mr Antonio, Manager, Climate Change Policy

Kitchin, Dr Margaret, Manager, Conservation Research

McKeown, Ms Helen, Conservation Liaison Officer, Environment

Office of the Commissioner for Sustainability and the Environment

Neil, Mr Robert, Commissioner for Sustainability and the Environment

**THE CHAIR:** Good afternoon, everyone. Good afternoon, minister. Welcome to this public hearing of the Standing Committee on Planning, Environment and Territory and Municipal Services, inquiring into annual and financial reports 2013-14. On behalf of the committee I would like to thank you, Mr Corbell, and your officials for attending today.

Today the committee will be examining the Environment and Sustainable Development Directorate annual report, excluding those sections already covered by the Minister for Planning.

I draw your attention to the pink privileges statement before you on the table. Could you and your officials please confirm for the record that you understand the privilege implications of the statement?

**Mr Corbell:** Yes, Madam Chair.

**THE CHAIR:** Thank you. May I also remind witnesses that the proceedings are being recorded by Hansard for transcription purposes, and webstreamed and broadcast live. Before we go to questions, minister, do you have an opening statement?

**Mr Corbell:** Good afternoon, Madam Chair, and thank you to the committee for the opportunity to appear before you today. I do not propose to make an opening statement.

**THE CHAIR:** Today we are looking at output 1, output 5 and output 6. I will start with a question, minister, regarding programs such as the outreach and energy efficiency improvement scheme on pages 56 to 70. Could you give us a bit of an

overview of these programs, the targets that are set and what practical outcomes these programs deliver for households?

**Mr Corbell:** The outreach program is an energy and water efficiency program for low income households. It is designed to improve the energy efficiency and water efficiency of those households, reduce their utility costs and reduce their greenhouse gas emissions. The government has set a target of 1,000 households to be assisted through this program. That was exceeded by 177 households in 2013-14 and is also on track to achieve that target for the current financial year.

Of the participants in the program, 79 per cent have household incomes under \$799 per week and approximately 70 per cent of the households assisted to date have been tenants in ACT Housing properties. The program is being delivered by five community welfare organisations—the Belconnen Community Service, Communities@Work, Northside Community Service, St Vincent de Paul and the YWCA of Canberra—and there are two contracted companies on a panel of providers who deliver the specific energy efficiency services through the program.

I have found this to be a very effective program. We have seen some really significant benefits from the program and we know that it is helping considerably those households on low incomes to reduce their utility costs—water, gas and electricity—and also helps to contribute to our overall greenhouse gas reduction targets.

I have previously seen some figures from an audit of the program that has confirmed the average savings and I will see if I can get those for the committee.

**THE CHAIR:** Thank you, minister. With the 1,000 households that you targeted, you say you are already 177—

**Mr Corbell:** That was for the 2013-14 financial year, which is obviously this specific reporting year the committee is dealing with today. We exceeded the target by 177 households.

**THE CHAIR:** Do you expect that to increase over the coming years as more people are becoming aware of the program, or is it that there is a greater need for the program?

**Mr Corbell:** We expect to again reach approximately 1,000 households in the current financial year. Whether or not we exceed it I think is probably too early to tell. Up to the end of September this year we had reached 327 low income households. That is obviously approximately a quarter into the new financial year and we had reached 327 households.

**THE CHAIR:** When did the program start? How many years old is it, or does it change each year?

**Mr Corbell:** Outreach commenced in 2012-13, I think. I am getting notes.

**THE CHAIR:** So what is the total number of homes so far?

**Mr Corbell:** I beg your pardon; it was actually initiated in June 2010 as a trial and has been expanded since that time on two occasions. The total funding to the program over four years is now \$7.8 million.

**THE CHAIR:** And how many homes in total so far, including this year and previous years?

**Mr Corbell:** I think I would have to take that question on notice, Madam Chair. I do not have that information immediately to hand, but I can certainly provide that.

**THE CHAIR:** Any supplementaries, committee? No. New question, Dr Bourke.

**DR BOURKE:** Minister, on page 17, could you explain to me the main features and effects of the three construction and energy efficiency legislation amendment acts passed in 2013-14?

**Mr Corbell:** I am happy to ask Mr Simmons to come forward to assist with that question.

**Mr Simmons:** Starting in 2010, there were some reviews into the performance of the building and construction industry and issues identified in and around the quality of construction. The government committed, at that stage, to a comprehensive policy review of the building and construction industry and in particular the Building Act and related legislation. Some further work in the total rewrite is due in the next calendar year. In the meantime there have been three amendments that you have identified to the building and construction industry through these three amending acts.

The first issue that we had was in relation to the quality of training and knowledge of construction practitioners. So the first amending act gave the registrar of construction occupations the power to direct training. In a lot of jurisdictions there are systems of ongoing professional development, often referred to as CPD schemes. They can be quite expensive schemes—sometimes they are voluntary; sometimes they are compulsory—and they are known to sometimes undergo some criticism for the quality of the training engaged around CPD systems. Wanting to avoid that and to deal with issues that are of individual competence and potentially system wide, the government chose to make changes that allowed for directed training. So, say an individual practitioner comes before the registrar and their competence is lacking in a particular area, the registrar can direct that individual to a particular form of training and say, “Your licence is conditional until you complete that form of training.”

Alternatively we may, for example, make a system-wide change. So there might be building certifiers who do exempt development. We might make a change to the single dwelling housing code. In that case, the registrar may direct an entire cohort of licensees to undertake training, to make sure that they are making decisions in accordance with the new provisions that have been changed, to make sure that that whole class of licensee can deal with something.

There are particular things that happen in the construction industry where new techniques start to evolve. We might see a significant amount of failure in a particular inspection class and we might say, “That is an area where we think further training

that is specific to that market sector really needs to be put in place to enable that to take place.” So that was the first of the changes that we made.

The second amending act was to deal with where there was a failure to comply with requirements when there was building work to be carried out, so we needed to up some of our penalties and to deal more effectively with some of those issues.

The third amending bill then introduced a mechanism by which we could be more clear in the public information we provide about the conduct of licensees and licensees who have had actions taken against them, so that there could be more public awareness in and around the activities of licensees who had transgressed and had conditions placed on their licences. That also came with an ability to register apprentices for the first time. Apprentices have always been entitled to work in the construction industry, as they are exempt from the licensing requirement if they are under contracts of training and properly apprenticed, but we had never separately registered them, so that amending bill also enabled the registration of apprentices. This gives us some greater capacity, where an individual licensee might have a large number of apprentices with them—the Work Health and Safety Commissioner, the construction occupations registrar and I have been concerned over a number of years about the supervision of apprentices—to avoid significant injuries to apprentices and to make sure that they are properly supervised.

The job of somebody who has an apprentice is to ensure that they are properly supervised and properly managed during their apprenticeship so that they pick up the necessary set of skills. One of the things it enabled us to do was to register apprentices, and we are going through that process in the next intake of apprentices in 2015. We have already been talking to our colleagues at the CIT about the most effective way to maximise the registration, to ensure that we have a clear line of sight to apprentices and that they are being properly supervised in the course of their apprenticeship.

**DR BOURKE:** I understand that you also continue to focus on pro-prosecution and pro-rectification policy for building quality matters in class 2 buildings—that is, apartment buildings. Can you expand on that statement and the policy, and why is it particularly aimed at apartments?

**Mr Simmons:** One of the ways that we approach the regulation of the building and construction industry is to look at risk. Risks can vary on a number of factors, but class 2 buildings which we refer to are multi-unit apartments. They are a significant and growing sector of the housing and dwelling market in the ACT. As the size of that market increases, it is important to ensure that those buildings are properly constructed and that the people doing the work are fully cognisant of the risks that are engaged in doing that type of work. There have been significant issues with leaking of a number of those types of buildings and that is what really—

**DR BOURKE:** What do you mean by leaking, Mr Simmons?

**Mr Corbell:** Through you, Madam Chair, I am sorry to cease indulging Mr Simmons on this, and Dr Bourke, but matters of building regulation are the responsibility of the Minister for Planning, not the Minister for the Environment. I appreciate that aspects of these bills still deal with energy efficiency matters and so on, but we are now

heading into the relevant building regulation and I would have to defer to my colleague on that. I am sorry.

**DR BOURKE:** Thank you.

**THE CHAIR:** Mr Wall.

**MR WALL:** Minister, you might inform the committee what responsibilities the directorate has for the monitoring of water and air pollution or odour that comes out of various waste facilities in the ACT?

**Mr Corbell:** Various what facilities?

**MR WALL:** Waste facilities, mainly the tip facility at Mugga Lane.

**Mr Corbell:** The EPA is responsible for pollution control and management issues in the territory and enforcement of the Environment Protection Act. And in relation to waste facilities, if they are required to have an environmental authorisation they would also be responsible for the oversighting of compliance with that authorisation.

**MR WALL:** As to the measuring or the checking of water quality, particularly of runoff areas, say downstream for the tip facility, who is responsible for doing that on the ground testing?

**Mr Corbell:** The EPA would be responsible for any issues around discharges that were unauthorised or which were potentially causing harm to the environment.

**MR WALL:** Is there any periodical, say, weekly, monthly, annual, testing of those watercourses?

**Mr Corbell:** It would depend on the specifics of the sites you have in mind, but if you are happy to provide further particulars I can certainly endeavour to answer your question.

**MR WALL:** Ultimately it would be Jerrabomberra Creek and Dog Trap Creek, which run parallel to the Monaro Highway?

**Mr Corbell:** I would be happy to ask the EPA to respond to that.

**Mr Walters:** As the minister quite rightly pointed out, those types of facilities are authorised under the Environment Protection Act and there is periodic monitoring, quite detailed monitoring, required at their leachate control system particularly for the landfill. What they have is a leachate control system that controls all the leachate that comes from within the landfill site, and obviously all the water that we do not want to add to that is diverted around the site. The authorisations are available on the website and the monitoring is also available.

**MR WALL:** What monitoring is conducted, though, of the discharges that do occur?

**Mr Walters:** It is quite technical monitoring. It covers all the potential contaminants



that you can get out of landfill, heavy metals, organochlorine, organophosphate, pesticides. Faecal is another one you often get quite considerable amounts of. Often that is caused by birds, it seems, that are always around the ponds, but there is a pretty standard suite that is analysed in authorisations across the country, and that is the same here in the ACT.

**MR WALL:** And how frequently are those tests carried out?

**Mr Walters:** I think there is quarterly testing, but I would have to take that on notice. We could actually provide you with the results from that. That is public information.

**MR WALL:** And where is that publicly available? Is that on the EPA website?

**Mr Walters:** As to authorisations themselves, we have just gone through a program of uploading all of those onto the directorate's website, which is a really good initiative to get public access to all the information, terms and conditions. The actual monitoring results you would have to request from the authority.

**MR WALL:** If in this forum we are able to request that the most recent—

**Mr Corbell:** Happy to provide it.

**MR WALL:** And perhaps the test results over the last annual period, the last 12-month calendar period?

**Mr Walters:** Yes.

**MR WALL:** Just to give some perspective?

**Mr Walters:** For Mugga? Just the Mugga landfill?

**MR WALL:** Unless the committee would like any other areas? The other part to that is the measuring of the particular matter in the air, the odour, the smell, that is often an issue out there. What measuring does the EPA carry out for that?

**Mr Walters:** The odour one is a tricky one. The South Australians, I think, have tried to develop something that replicates the human nose, but generally odour is one that is managed by the authorisation holder that it is evident. We have particular receivers in that area, like Hume and Macarthur residents. EP officers are regularly at the landfill doing inspections. They have a program in place in terms of the conditions where they have to cover the material on a daily basis, and it has been found with landfills that if you do not do that then you have odour emission.

Getting to your air question, the ACT is part of a national air quality monitoring scheme through the national bioprotection measure and ambient air quality. The monitoring stations are located in Monash, and the ACT has just recently opened up new monitoring stations in Florey so that we can—

**Mr Corbell:** And in Civic as well.

**Mr Walters:** And we have a surrogate station in Civic as well. What that means is that the ACT is a signatory to the national air monitoring regime. We report annually on that to the commonwealth and we also produce an ACT air quality report, which is available on the directorate's website as well. The ACT experiences excellent air quality, as would be expected, but we do experience some issues, more in winter.

**MR WALL:** You mentioned the requirement of keeping the odour issues under control at the tip and that the cell needs to be covered up at night time.

**Mr Walters:** Yes, that is part of their standard conditions. They have to do that. But you may have noted, though, there are some works being undertaken to facilitate the landfills in the ACT. There has been some cover that has had to be dug up to facilitate that work, and I believe—

**MR WALL:** It is quite a substantial area that has been uncovered, is it not?

**Mr Walters:** Yes, and I believe that Territory and Municipal Services issued a press release on Friday in relation to that matter, which was, we thought, a proactive step in liaising with the community and saying these issues are out there. Because it is essential work for the ACT in terms of waste management, it is important to make people aware.

**MR WALL:** How many complaints has the EPA received as a result of the increased odour being emitted by the tip whilst this work has been carried out?

**Mr Walters:** We have only received five complaints—a couple from Hume and a couple from Macarthur. And that is why the EPA had that discussion and said that it would be a good idea to inform the members of the public of the works. Generally as a policy the EPA finds if you communicate with the community at the earliest stage then they feel aware of what is going on.

**MR WALL:** And what is considered an early stage?

**Mr Walters:** I cannot remember the details exactly of when those works were—

**MR WALL:** Halfway through the work being carried out?

**Mr Walters:** I think what happened was that it was more the nature of the work and how it was occurring. They are in an area now that was obviously facilitating greater odours. They had attempted to use some dust suppressing measures. They used Biosol and other sprays. They were doing what was practical in the circumstances.

**MR COE:** If I may ask you a supplementary—I hope it is not too stupid a question—what constitutes a complaint? Is it someone calling up Canberra Connect and just saying, “There is an odour that I don't like,” or do they actually have to fill out some sort of form and submit it to the EPA?

**Mr Walters:** The EPA is happy to take complaints in almost any form. We often get complaints through members of the Assembly. Canberra Connect is our predominant avenue that we encourage people to make complaints through, and as soon as they

make the complaint it is forwarded to an officer and the matter is investigated. We take these things seriously with the community.

With the resources we have in this current climate, they are the ears and eyes of the EPA, and obviously we want to hear from them. So we encourage them to contact us. There may not be a significant issue, but we will get onto it and investigate it as soon as possible. And we find that dialogue between the complainant and the EPA works very well.

**MR COE:** What about with regard to operators, recycling businesses or waste managers et cetera; are there opportunities for them to report issues and, if so, have any issues been reported?

**Mr Walters:** Not to my knowledge, but it is not uncommon in the history, since I have been with the organisation, that workers have had issues with operations on site. That is not unusual. And once again, being an impartial arbitrator of them in investigating these matters, the EPA would obviously go and have a look at the situation to see what the circumstances are. We always have to work on the balance. Just because we receive a complaint does not mean it is validated. We have to obviously go and gather evidence to see what the situation actually is.

**THE CHAIR:** Mr Coe, a substantive question.

**MR COE:** With regard to the energy efficiency improvement scheme, I am wondering whether the government is planning to retarget this scheme in its current form or is it planned to continue as it presently is.

**Mr Corbell:** Retarget it?

**MR COE:** Yes.

**Mr Corbell:** I am not sure what you mean by retarget.

**MR COE:** It has had various iterations already in terms of residential targets, commercial targets. And then overlaid on that has been the replacement of single flush toilets et cetera. The scheme has morphed over time, and I am just wondering whether it is likely to do so again.

**Mr Corbell:** The government has expanded the scheme. I would not characterise it as morphed, but it has changed to be expanded in its scope to include not only households, residential premises, but also small and medium enterprises. The Assembly has, as you would know, adopted legislation to expand the operation of the scheme to include small and medium enterprises as well as the household component. That has been the only substantive change to the scheme, to expand it to small and medium businesses.

At this point in time, the scheme has reached approximately 20,500 households in the period 1 January to 30 September this year—that is, three-quarters of the 2014 compliance period. During this time, the tier 1 retailer who is discharging its obligations directly to consumers under the scheme, which is ActewAGL, has added a

fridge retirement activity under the EIS. As members would know, as minister I determine a range of eligible activities that the retailers can deploy to meet their obligations under the scheme and then the retailers choose which of those eligible activities to deliver.

I am pleased that ActewAGL has chosen to add a fridge retirement activity under the scheme. Fridges, particularly old fridges, are very energy hungry devices. Measures to encourage households to retire their old fridge, particularly if it is the old second fridge—it might be chugging away in the garage or the pool room or wherever it may be—are a valuable initiative to reduce energy consumption in households and reduce households' energy costs. To date 713 refrigerators and freezers have been retired under the scheme.

**MR COE:** When you say “retired”, do you mean retired and replaced?

**Mr Corbell:** No, retired. ActewAGL offer a payment to the household, a small payment, to have the fridge surrendered and, therefore, retired and appropriately recycled.

**DR BOURKE:** How are fridges assessed for their energy efficiency, minister?

**Mr Corbell:** In terms of old fridges?

**DR BOURKE:** Yes.

**Mr Corbell:** There are criteria. I could not provide those to you immediately, but I am happy to make those available to you.

**DR BOURKE:** Thank you.

**Mr Corbell:** Obviously, they are fridges of a particular age.

**DR BOURKE:** Twenty, 30 years old, or newer than that?

**Mr Corbell:** They tend to be older fridges, yes.

**MR COE:** What is stopping someone from just retiring their fridge and then replacing it and still having a second fridge? In net terms it might be better than the old fridge and the newer fridge, but if they are having two fridges in the house, it is hardly consistent with the objectives of the scheme, is it?

**Mr Corbell:** The objective of the scheme is to improve the overall energy efficiency of the dwelling, and replacement of an old, inefficient appliance with a new, efficient appliance is obviously desirable and is consistent with the objectives of the scheme.

**MR COE:** What about clothes dryers? Have any clothes dryers been replaced under the scheme, as they have in the past?

**Mr Corbell:** Clothes dryers have previously been replaced under the Outreach program, which is a separate program that Ms Berry asked about earlier. As far as I

am aware, replacement of such devices is not currently being actioned under this scheme.

**MR COE:** Would you be able to provide to the committee a complete list of the goods that are able to be replaced or are a part of the incentive scheme?

**Mr Corbell:** A complete list of eligible measures under the scheme is either a notifiable or a disallowable instrument and is a public document. So I direct you to that document.

**MR COE:** Therefore, you would be able to provide it.

**Mr Corbell:** Happy to provide it, but it is, of course, available online in the legislation register.

**MR COE:** Sure. Are you able to advise what the cost of the scheme has been?

**Mr Corbell:** The cost of the scheme?

**MR COE:** For the last 12 months.

**Mr Corbell:** To whom?

**MR COE:** The taxpayer.

**Mr Corbell:** The scheme operates as a market-based scheme. That means that the cost of the scheme is passed through in household electricity costs across not just household but all electricity consumers; so it is a market-based scheme. The cost, as you would know, is outweighed by the benefits in terms of savings to households. The net saving to households after the pass-through cost is approximately \$1,600 over the lifetime of activities implemented by eligible households.

**MR COE:** Sure. What is the total outlay for the scheme, then?

**Mr Corbell:** The total pass-through cost is reflected in the determinations of the ICRC. I would have to take the specific dollar figure on notice.

**MR COE:** Yes. Just, say, that the average energy prices have gone up by \$10 to accommodate for this scheme. Does that mean that we can simply say that the cost of the scheme is the number of households and the number of electricity accounts times \$10?

**Mr Corbell:** No, because it is a consumption-based charge. Obviously if you use more electricity you pay a greater proportion than an electricity user that uses less electricity. That is reflected in the ICRC determination. The important point to make is that the government has tabled a detailed cost-benefit analysis of the application of this scheme both to the household sector and to the small and medium business sector. Both of those analyses confirm that, overall, there is a significant benefit to households and saving to households who participate in the scheme and that that well and truly outweighs the pass-through cost that comes through the scheme. This is a

scheme that saves people money as well as reducing people's greenhouse gas emissions.

**MR COE:** Minister, just to clarify that, I will tell you what I am requesting: the aggregate of the scheme which the ICRC has factored into the cost recovery charged through energy consumption.

**Mr Corbell:** I am happy to make that available. It is already a public figure insofar as it is in the public determinations made by the regulator, but I am happy to provide that on notice to the committee.

**MR COE:** Thank you.

**THE CHAIR:** Minister, with the small to medium businesses, does the refrigerator retirement include the industrial fridges or is it just upright fridges?

**Mr Corbell:** Measures for small and medium enterprises are specifically tailored to that sector. So obviously the types of measures that are eligible activities for the household sector will be different in some respects from those that are eligible activities in the small and medium business sector. As you say, in the small and medium business sector, measures around improving the energy efficiency of the types of goods that are in that sector, such as larger industrial and retail fridge equipment for storage of goods for sale, HVAC systems—heating, ventilation and air-conditioning systems—and other things that are more industrial in scale insofar as they are in a small and medium business and would not be present in the household, are captured through an appropriate range of measures for that sector.

**THE CHAIR:** Did anyone have any further questions on output 1?

**DR BOURKE:** Yes, I did. Minister, with regard to Waterwatch, which has been affected by a federal cutback, I understand, has the ACT government still been able to support waterwatchers working for Frogwatch? I refer to page 34.

**Mr Corbell:** Thanks, Dr Bourke. The Waterwatch program is a really valuable program. It is a volunteer-based program. It is designed to support volunteers in the community to undertake measuring and observation activities on the health of waterways in the ACT.

Regrettably, the current federal Liberal government has ceased funding of the program. It was ceased following cessation of the Caring for our Country initiative by the current Liberal federal government. I am pleased to say, though, that the ACT has stepped in and we have been able to facilitate funding for that program so that Waterwatch can continue.

**DR BOURKE:** What about Frogwatch?

**Mr Corbell:** I think that includes Frogwatch. Is that correct?

**Ms Ekelund:** We have continued to provide some level of support to Frogwatch, partly financial but partly also with our ecologists providing advice and guidance for

the volunteers.

**THE CHAIR:** We will move on to output 5, environment and policy. Minister, the ACT has been recognised internationally in relation to its greenhouse gas emission reduction and renewable energy targets and associated feed-in tariff auction processes. Could you tell the committee the impact of the federal government's cut to their renewable energy target and how that has affected us in the ACT and how it effects the renewable energy industry more broadly?

**Mr Corbell:** Thanks, Ms Berry. Just to be clear, there has not actually been a cut to the renewable energy target at this time, but what we do have is a position on the part of the federal government that has indicated a desire to substantially wind back or in other ways undermine confidence in the program.

As a result of the Warburton review commissioned by the federal Liberal government, despite their claims prior to the election that they were committed to the renewable energy target as it currently stood, we have seen almost a complete cessation in private sector investment in renewable energy in this country. That is because there is uncertainty about the future of the target. There is serious concern about the current government's commitment to any form of a renewable energy target, and businesses are simply not willing to invest in projects.

**MR COE:** What evidence is there to support that?

**Mr Corbell:** The fact that in the financial year prior to the federal government's election, there was over \$1 billion worth of investment in renewable energy projects in Australia. In the most recent financial year there has been less than \$20 million.

**MR COE:** And you can directly attribute that to a policy that has not changed?

**Mr Corbell:** You can directly attribute it to the fact that the federal government has commissioned a review that wants to significantly scale back, if not completely abolish, the renewable energy target.

**THE CHAIR:** Can you just take us through the targets in the ACT and how the ACT is tracking in achieving those?

**Mr Corbell:** In relation to our 90 per cent renewable energy target?

**THE CHAIR:** Yes.

**Mr Corbell:** Sure. At the moment there are three large-scale renewable energy projects awarded support under the feed-in tariff scheme arrangements. One of those is now operational—the Royalla solar farm. It is a 20-megawatt PV solar project, which has been operating since September this year. That is meeting the energy needs of just over 4,000—the equivalent of approximately 4,500—Canberra households.

There are two other large-scale solar projects in various stages of project development. The first is the Zhen solar 13-megawatt PV project, which has received planning approval and is finalising a range of other regulatory approvals needed to allow it to

commence construction early next year at Mugga Lane. There is the seven-megawatt OneSun Capital project, a PV project proposed for a location adjacent to Uriarra Village, which members would be familiar with and which is subject to development assessment processes currently through the Planning and Land Authority.

In addition to that, there is an auction being finalised to support 200 megawatts of wind energy generation to help us meet our 90 per cent renewable energy target. The government has indicated that we will award at least two entitlements in that 200-megawatt auction round. We have had a very strong level of interest and formal bids. Eighteen proposals have come forward through the formal bidding process. The government is finalising right now its consideration of those bids. I expect to make announcements as to the winning bidders early next year.

**THE CHAIR:** In respect of the 90 per cent renewable energy target, that could only be achieved if these kinds of projects can go ahead?

**Mr Corbell:** Yes. The objective of this strategy is to effectively decarbonise the ACT's electricity supply sector. To achieve that, we estimate it is approximately 490 megawatts of renewable energy generation. With the award of 200 megawatts of wind energy generation, along with the existing entitlements awarded for 40 megawatts of solar PV generation, you can see that we are well on the way to achieving a 90 per cent renewable energy target with the awarding of 240 out of approximately 490 megawatts of renewable energy generation needed to meet the 90 per cent target.

**THE CHAIR:** A supplementary, Mr Wall.

**MR WALL:** Minister, of the 40 megawatts of solar, what is the break-up of that between small-scale, medium and large?

**Mr Corbell:** The 40 megawatts is entirely the large-scale projects, Mr Wall. The small-scale solar is separate.

**MR WALL:** With respect to all the rooftop solar installations that have occurred in the territory, what does that equate to?

**Mr Corbell:** Approximately 40 megawatts, but I am happy to get an exact figure.

**MR WALL:** That is not included in your breakdown of figures? That comprises about eight per cent of the target. Why is that not included in the breakdown you gave to the committee?

**Mr Corbell:** Rooftop solar is accounted for differently through national accounting methodologies. So it is not able to be accounted for in the 90 per cent target. Mr Sibley is indicating otherwise. I might ask him to come forward. This is a fairly technical area, so I might ask him to correct me where I have made an error.

**Mr Sibley:** That is correct. The small-scale renewables, as we call it, which is the rooftop solar on ACT households, is about 40 megawatts. It is accounted for separately from the large-scale renewable energy program, but it does add towards the



90 per cent. So the 90 per cent is made up of a range of sources, including the rooftop solar, including our share of the national renewable energy target, which we fund, and our green power purchases, whether they be from businesses or from households. The large-scale program really makes up the difference, to get to the 90 per cent.

**MR WALL:** What portion of energy usage in the ACT is currently—I missed the terminology you used when an end user opts to buy renewable power with their supplier.

**Mr Sibley:** The green choice?

**MR WALL:** The green choice. What component of energy use in the ACT falls under the green choice category?

**Mr Sibley:** It is a relatively small percentage. I do not have the number available. It is under five per cent.

**MR WALL:** In megawatt usage terms, we would be talking five per cent of that 490?

**Mr Sibley:** The 490 is the additional large-scale investment that is needed to take the total renewable energy usage up to 90 per cent renewables. So the 490 is the gap, if you like, between what is expected under business as usual conditions with the large-scale RED and the rooftop solar and the 90 per cent target.

**Mr Corbell:** If you want a more specific breakdown, we can obtain that, Mr Wall; I am happy to take that on notice.

**MR WALL:** If you would, please.

**MR COE:** Of that 40 megawatts which is rooftop, what is the capital outlay, in effect—even though it is not actually capital; it is not really sitting on the books of the territory? What has the outlay to the taxpayer been for that 40 megawatts on a single basis as opposed to the recurrent in terms of the feed-in tariff?

**Mr Corbell:** There is no outlay by the territory in relation to rooftop solar.

**MR COE:** There has never been?

**Mr Corbell:** A proportion of that rooftop solar is supported through feed-in tariff scheme arrangements—small-scale feed-in tariff scheme arrangements—which are now closed. But for those households that were eligible and are receiving that, that cost is reflected in overall electricity charges because it is a pass-through cost to electricity consumers.

**MR COE:** In roughly, say, 2005, 2006 and 2007, was there no incentive for the construction or the installation cost?

**Mr Corbell:** No.

**MR COE:** What is the annual payment or the annual liability for those

40 megawatts—in effect, the difference between the feed-in tariff versus the negotiated rate as set by the ICRC?

**Mr Corbell:** Basically we have two types of households. We have households that installed solar at a time when they were able to apply for a payment under the various iterations—

**MR COE:** That is pre-2010 or 2009, or thereabouts?

**Mr Corbell:** 2010, if I recall correctly—the closure of the micro FIT, approximately.

**MR COE:** Thereabouts.

**Mr Corbell:** Thereabouts. So for those households that were eligible and installed rooftop solar and claimed while they could access the various iterations of the rooftop solar feed-in tariff scheme, they continue to receive payments under that scheme for the 20-year term as is set out in the legislation.

What we have seen, since the rooftop solar feed-in tariff scheme was closed, is that people have continued to install solar. There have been approximately another 10 megawatts installed since the household FIT closed. So people have continued to install solar. I can check that figure but certainly many megawatts of rooftop solar have been installed since FIT closed because the price of rooftop solar has continued to significantly decline; therefore it has made it more financially attractive and available to households to install, even without a FIT payment. So there are two types of households. The cost as such to the community is only in the cost that is mandated under legislation for the payment of the FIT scheme for those households that are eligible.

**MR COE:** You can take that on notice?

**Mr Corbell:** Yes. I should say that those figures are publicly available. The ICRC reports on those figures annually and the report is on their website.

**DR BOURKE:** The trial advanced energy technology systems working group: what is it looking at and who is involved in it? I refer to page 57.

**Mr Sibley:** This is action 6 of climate change action plan 2. The directorate formed a working group of parties which included ActewAGL Distribution, the CSIRO, ANU and the academy of sciences and technology engineering. There are a couple of other members, including our utilities technical regulator and from an energy policy perspective.

We looked at the emerging technologies in this space. There is a lot of expectation in the energy industry and through all levels of government that battery technologies will be very disruptive, both from a technical perspective and from the perspective of the existing regulatory frameworks for electricity networks. So it was decided to develop a trial concept for implementation in the ACT which would provide information for regulators or policymakers as well as the participants in our electricity market.

Ultimately, a proposal was developed which included some of the original members of that working group for the proposal that was developed, including Zhenfa solar, which is one of the proponents in the solar auction, CSIRO, ANU, Canberra Institute of Technology, Environment and Planning Directorate, and ActewAGL Retail and ActewAGL Distribution. So it was a fairly significant group of people coming together with a significant stake in this issue.

**DR BOURKE:** With respect to the article in the *Canberra Times* on 14 December where proponents of some sort of domestic storage facility were talking about the capacity to sell back into the market at a peak time and therefore get a better rate for their power, is this the very area that you are talking about?

**Mr Sibley:** It is the same area. That company is Reposit Power, which is a start-up company based in Canberra with a very interesting technology platform. They are in the early stages of commercialising their product and taking it to market. I believe it was actually launched yesterday. Reposit Power provided technical input into the proposal that we have been developing around this trial. They are one of the proponents that could be providing a technology solution under such a trial.

**DR BOURKE:** You said “disruptive” before. What does that mean?

**Mr Sibley:** The existing energy market has been constructed around a very centralised generation model, with users distributed and large generators located usually and typically in rural areas. In addition electricity networks have been factoring in ongoing growth in volumes of sales and demand at the time. Battery storage, especially combined with solar, has the potential to allow users to reduce their demand on the network and provides a much more distributed base for electricity generation in the network.

That affects network revenues. It affects retailer revenues and incumbent revenues for generators operating in the national electricity market. It also affects the framework by which jurisdictions provide technical regulation, electrical safety and these kinds of things. So it is an emerging area which will create some challenges for regulation. The ACT is taking a proactive approach to try to get ahead of this change and see how it can be managed effectively.

**Mr Corbell:** Renewables with storage completely disrupt the existing business model of incumbent generators and suppliers. It is similar to the way IT and social media have dramatically disrupted the business model of traditional media outlets—print and electronic media outlets. So it is a very substantial technological change that will drive a whole range of different consumer behaviours as consumers choose technologies that are rapidly cost effective to reduce their costs but at the same time potentially abandon or significantly reduce their reliance on the traditional energy market structures and network structures. So we can either choose to resist that and ignore it and wait for consumers just to completely change it without any proactive activity or we can try and anticipate and respond to that and be in a position to make sure that our energy networks remain reliable, they remain safe and also cost effective to consumers and are environmentally more sustainable.

Those are the choices we have. The territory is very focused on the latter, which is

preparing for that change and responding to that change because that change is coming. There are economic advantages in being early adopters and part of that transition. The company that was mentioned, Dr Bourke, is a great example. Reposit Power is a Canberra-based start-up. It has just received a very significant amount of funding from the Australian Renewable Energy Agency, the commonwealth agency that supports innovation in renewable energy. They are trialling their IP and their know-how here in Canberra, but potentially they can be part of that new emerging market. If they can, that is a very good thing for local economic development, jobs and innovation in our economy.

**MR COE:** When did they receive that start-up funding?

**Mr Corbell:** Yesterday. It was announced yesterday, from ARENA.

**MR COE:** Under a Liberal government?

**Mr Corbell:** Yes, the same Liberal government that wants to close ARENA.

**DR BOURKE:** They have not managed to do that yet?

**Mr Corbell:** They cannot get it through the Senate.

**DR BOURKE:** Really? Strange!

**THE CHAIR:** Ms Lawder, Mr Coe deferred to you earlier. I am sorry, I misheard him.

**MS LAWDER:** Thanks. Minister, I wanted to ask about the Murray-Darling Basin Plan. Page 61 of the annual report, at the bottom just above the photo, states:

The ACT is currently developing a water resources plan, which is a requirement under the Murray-Darling Basin Plan.

What is the time frame for developing that plan?

**Mr Corbell:** I will need to ask some advice on that.

**Mr Kendall:** There are over 20 plans required for catchments across the Murray-Darling Basin. The ACT's is one of the first off the rank and the plan is due by the end of 2015.

**MS LAWDER:** The calendar year?

**Mr Kendall:** That is correct.

**MS LAWDER:** Does it take into account stormwater as well in that plan? Is there stormwater diversion?

**Mr Kendall:** It certainly includes the net water use across the ACT. So there is a sustainable diversion limit set for the ACT as part of that plan.

**MS LAWDER:** Does it include any proposal to harvest stormwater?

**Mr Kendall:** That would be included in terms of the net water use. The sustainable diversion limit for the ACT's surface water is 52.5 kilolitres, less the shared reduction volume set for the ACT of 4.9 kilolitres.

**THE CHAIR:** I just have a supplementary regarding water usage in the ACT. In 2003 there was a lot of communication to Canberra residents about reducing water and becoming a more water-efficient and water-wise community. Now that we have a much larger dam, is it still an important thing for the ACT to make sure that we continue to be a water-efficient city and region?

**Mr Corbell:** Yes, Ms Berry. The government's overall calculations about future consumption are predicated on a net reduction in business-as-usual use. The target that was set back when the government implemented its previous water strategy was a 25 per cent reduction on business as usual as the baseline for our assumptions about the level of water required. I am pleased to say that we have maintained that baseline adjustment.

So even though we have seen a return to relative prosperity in terms of the amount of water available in our catchments, our assumptions and our long-term planning horizons have assumed the maintenance of that 25 per cent reduction in potable water use compared to the baseline year, and that continues to be the case. We continue to see consumption at lower levels than we have seen prior to that baseline year being set. The bottom line is that we have been able to sustain a lower level of per capita consumption compared to periods prior to the millennium drought.

**DR BOURKE:** As a large inland city, minister, what sorts of strategic differences does this mean for us, compared to the major capital cities on the coast, with regard to reducing water consumption? For instance, most of the water that goes through homes and goes out into waste water is effectively recycled into the Murrumbidgee.

**Mr Corbell:** Clearly we are in a unique situation because we are an inland city, and our waste water flows back into the broader basin, so we have to obviously treat waste water, black water, to a high standard, as we do through lower Molonglo water quality control, before we return it to the Murrumbidgee and the greater Murray-Darling system.

In relation to stormwater, clearly that is one of the drivers behind the commonwealth's agreement to fund the territory to the tune of \$85 million for catchment management improvement. Our stormwater system, whilst effective at detaining a lot of nutrient load and other pollution before it enters the Murrumbidgee proper, is under stress, and we see that reflected in the relative health of our waterways and other urban water bodies. That is why we have the \$85 million funding to help us to respond to that challenge and to improve the health of the catchment above the Murrumbidgee and the nature of the quality of the water that ultimately ends up in the Murrumbidgee. That is the context in which we operate.

We have secured an effective sustainable diversion limit for the territory through the

Murray-Darling Basin agreements, and we also have significant improved capacity storage in our system, thanks to the government's water security projects, major water security projects, which are the enlargement of the Cotter Dam and the Murrumbidgee to Googong transfer infrastructure and also the water purchase from Tantangeranga that allows us to transfer water when needed across from the Murrumbidgee into Googong to store. So whilst we have limits on consumption, the capacity to store significantly larger amounts of water than we can consume in any one year provides us with that longer term water security that we need to cater for growth and to provide certainty and avoid costs to the community, the environment and the economy.

**DR BOURKE:** With the catchment health that you mentioned before, minister, what sort of progress are we making there?

**Mr Corbell:** The steps the government is taking in relation to catchment management under the basin priority project, the \$85 million project I referred to earlier, are set out in an agreement between the territory and the commonwealth. It sets a whole series of milestones that we have to meet. We are at the early stages of that project now, which is largely around water quality monitoring, data gathering and analysis as well as preliminary assessment of possible works to occur in the priority catchments that have been allocated funding under that project. We continue to meet those milestones. Once we reach the appropriate point in the project agreement, we will be in a position to start deploying projects on the ground to actually physically improve the management of water and, therefore, the quality of water in those catchments.

**DR BOURKE:** Thank you.

**THE CHAIR:** Just a supplementary to that: how do we work with the region? I am particularly talking about Belconnen, where Ginninderra Creek pops out of the ACT and then back in again when it reaches down the river. How do we make sure that it is kept safe and it is not being polluted outside of the ACT when it pops out and then comes back in again? How do we work with the region to make sure that that does not happen?

**Mr Corbell:** The government has agreed new governance arrangements for the administration of our basin priority project—the \$85 million project. That includes a joint governance oversight framework and a steering body of key stakeholders across all jurisdictions. So there are three key jurisdictions: the ACT; the commonwealth, through the National Capital Authority, responsible for Lake Burley Griffin; and the New South Wales state government, including the subordinate levels of government, like local government areas.

We are seeking to bring all of those bodies together. The government has agreed on an overarching advisory body that will bring together the senior leaders responsible for different aspects of catchment management across the catchment, regardless of jurisdictional borders, and will include representatives of the New South Wales state government, local catchment management in New South Wales, catchment management here in the ACT at both the ACT and National Capital Authority level as well as water utilities, where they have a role to play, so ACTEW are represented on that body as well. So a range of stakeholders are brought together.

What the government have said is that we want representatives at a senior level engaged in that body so that there is agreement across all the different stakeholders about what actions they will take and the authority to push those actions through. The ACT does not, as a jurisdiction, have control over a number of these areas. For example, we do not have control over the management of Lake Burley Griffin. We do not have control over the management of water bodies outside of the ACT. You mentioned Ginninderra Creek, but obviously there is the Molonglo itself and other parts of catchments around the ACT as well, so we need the agreement and the cooperation of those other jurisdictions to allow us to effectively implement this project. We have received a strong level of support from those other jurisdictions to be engaged and to participate and cooperate in those governance arrangements.

**THE CHAIR:** Thank you, minister.

**MR COE:** A supplementary: has the M2G transfer ever been used?

**Mr Corbell:** It has certainly been made operational. I am not aware of any specific purchase that ACTEW have been required to call on yet to transfer water downstream from Tantangera down the Murrumbidgee to Googong, given the relative wet period we have had since that infrastructure was first put in place. To the best of my knowledge, all the necessary approvals and agreements are in place to facilitate the use of that infrastructure should it be required.

**MR COE:** Is ACTEW responsible for maintaining the pump and the equipment?

**Mr Corbell:** Yes. It is ACTEW's infrastructure, yes.

**THE CHAIR:** Mr Wall, a substantive question.

**MR WALL:** Thank you, chair. The top of page 63 of the annual report talks about catchment management governance. What were the possible governance models that the directorate considered and what is the chosen way forward?

**Mr Corbell:** They are the governance arrangements I was referring to earlier in my answer to Ms Berry. The government considered a range of models, including a statutory model—for example, the establishment of a stand-alone catchment management authority. We have not settled on that model, but we have settled on a hybrid model that involves an advisory mechanism but also some statutory component. I will be bringing it forward and making further announcements about that in due course.

**MR WALL:** As part of those governance arrangements, does it look at ways of improving existing stormwater infrastructure? Going to my electorate, there is the pond at Fadden Hills and also the large pond at Point Hutt crossing, which are often raised with both Ms Lawder and me as having a fair amount of rubbish and build-up of silt particularly that has accumulated in them over the years of operation.

**Mr Corbell:** Yes. The nature of the works that will be deployed on the ground, Mr Wall, will be driven by the evidence and driven by the data collection process that is currently underway at the moment. So the data collection process that is underway

at the moment is measuring and collecting data on the relative health of the various catchments, the nature of the pollution or problems in those catchments and what are the best technical responses to those problems.

I am not in a position to comment on any specific works that will proceed in the water bodies you mentioned at this time. But what I would say is that obviously those water bodies are within the priority catchment. Lake Tuggeranong is one of the priority catchments, and the Tuggeranong valley itself, and there is monitoring occurring across the Tuggeranong valley, looking at the relative health of the waterways and the water bodies in the Tuggeranong valley, how effective existing infrastructure is in terms of its current operation and what improvements need to occur and where they need to occur.

For example, in relation to Point Hutt pond, I have had the opportunity to meet with residents in the adjacent areas. Some of the issues they have raised are more day-to-day management issues which I am following up with the Territory and Municipal Services Directorate, because they are just general maintenance issues that can be addressed. The other issues can be considered in the context of the catchment management project.

**MR WALL:** You mentioned that you are in the process of collecting evidence to determine what action is taken on the ground. When is that data collection expected to be completed?

**Mr Corbell:** The water quality monitoring component is scheduled to be finally completed by February 2016. However, there is an overlap between when that is completed and when we start giving consideration to works on the ground. For example, we have already commenced a preliminary analysis of possible works on the ground across the different catchments which will help inform final decision-making once we reach that milestone period.

**MR WALL:** For the governance arrangements that your government is committed to, have the commonwealth or New South Wales governments committed any funding to those arrangements or are they entirely funded by the ACT?

**Mr Corbell:** The \$85 million funding is commonwealth money which the territory has secured, and then we make our own matching contribution through works in kind or other measures to make up the balance.

**MR WALL:** Thanks.

**THE CHAIR:** Ms Lawder, did you have a question?

**MS LAWDER:** Yes. I want to ask about the stocking of urban ponds, at the bottom of page 65. I think, minister, you mentioned Yerrabi pond earlier. Was Yerrabi pond restocked after the recent issue with dead fish?

**Mr Corbell:** Can someone come forward?

**Dr Kitchin:** Yes, there was the fish kill earlier in Yerrabi pond. We are currently



monitoring it. There are still Murray cod that have survived that fish kill. We will monitor it; when we think it is appropriate, we will restock. But that is yet to be assessed.

**MS LAWDER:** But it went ahead in Lake Ginninderra and Googong? Restocking went ahead?

**Dr Kitchin:** That is correct.

**MS LAWDER:** Any other areas restocked?

**Dr Kitchin:** There will be an additional stocking of Lake Burley Griffin by the National Capital Authority, and our own group will do Lake Ginninderra this Friday.

**MS LAWDER:** There have been no instances similar to Yerrabi pond with the fish kill?

**Dr Kitchin:** No, nothing further that we have monitored.

**MS LAWDER:** Was that a black water incident? Can you refresh my memory?

**Dr Kitchin:** The exact cause of these things is unknown because it is quite complex, but we did do some monitoring and we suspect that it was a low dissolved oxygen incident, where the oxygen levels dropped very low. Our ecologists were on site the next morning and the oxygen level had increased, so we did not actually get to measure at that point. But that is the current theory—that that was the cause.

**MS LAWDER:** Do you know what some of the causes for that could be? Was it a sudden increase in temperatures, to cause that low level of oxygen?

**Dr Kitchin:** To be certain with any of these fish kills, you would have to have continued monitoring. At the time, that was what we did. We went back and monitored as soon as we were alerted to the fish kill, and that is our suspicion—that it was that dissolved oxygen level.

**MS LAWDER:** I think my question was: what leads to low oxygen levels? What can cause that to happen?

**Dr Kitchin:** I would have to take that on notice exactly. It can be a temperature thing; it can be a change in the amount of water that is going into the pond. But if you want specifics of the ecology of dissolved oxygen and how it evolves, I will take that on notice.

**MS LAWDER:** But you certainly were able to rule out any kind of pesticide or contamination type thing?

**Dr Kitchin:** We did do viral tests. We sent dead fish to a specialist ecologist in Sydney, at the University of Sydney. They did some testing for the most likely viruses that it could have been, and there was no detectable trace of those viruses that were tested for. Certainly, the EPA did water quality testing, and all of the measurements

came back within the regulation levels.

**MS LAWDER:** Thank you.

**MR COE:** What are the environmental benefits of releasing Murray cod into the waterways?

**Dr Kitchin:** The reason we stock native fish is to rebalance the urban lakes with native fish. They play a role in enhancing the native balance in the ecosystem, so we do stock with those fish. Some of the bigger fish will eat small carp; that is a minor effect. It is getting that balance back into our waterways.

**MR COE:** Is it primarily an environmental initiative or is it a recreational fishing initiative?

**Dr Kitchin:** It is both. There are a high number of anglers that are interested in recreational fishing in Canberra. The Canberra angling club contributes the funding to the stocking, because there is interest in continuing that as a recreation. Our involvement, the environment directorate involvement, is to keep the native fish numbers in our lakes.

**MR COE:** Where are they purchased from? Is it Eucumbene or somewhere locally?

**Dr Kitchin:** I am not sure exactly. We have a supplier who we source on contract and pay each year for the services.

**MR COE:** What are the numbers that get released, roughly?

**Dr Kitchin:** I thought I had the numbers—I would have to look it up—of how many we are going to release on Friday. It is probably in a press release that will come out on Friday.

**MR COE:** In that instance, don't worry about it. If that does happen, don't worry about taking it on notice. That is fine.

**MR WALL:** Just a supplementary, chair?

**THE CHAIR:** Sure.

**MR WALL:** Dr Kitchin, on the fish release, are there any estimates or research done to ascertain the survival rate of the fish that are released into the ponds and dams in the territory?

**Dr Kitchin:** No; we have not done that level of monitoring.

**MR WALL:** You mentioned that the releases have been suspended in Yerrabi but are occurring in Lake Ginninderra.

**Dr Kitchin:** This year. We have an ACT fish stocking plan. It is on the web, if you would like a copy. It outlines the government's program for fish stocking. That is

currently being updated. It outlines which species of fish and how many in the intended stocking rate. This year the two areas that we are stocking are Lake Ginninderra, and that is an ACT government initiative, and Lake Burley Griffin, which is an NCA initiative. We do it together; it is a partnership and we release them on the same day.

**MR WALL:** You mentioned that the Canberra anglers society or club makes a contribution to the program?

**Dr Kitchin:** Yes.

**MR WALL:** What is the value of their contribution in proportion to the cost to government?

**Dr Kitchin:** I do not know exactly. I would have to get back to you on exactly the amount.

**THE CHAIR:** Minister, this might not be in your area, but you can tell me if I am wrong. It is about old service station sites, particularly the remediation process. Are you able to take the committee through that or is that some other—

**Mr Corbell:** No; the EPA is ultimately responsible for oversight of remediation of polluted sites insofar as the regulatory framework is concerned. Remediation itself has to be undertaken by the polluter, so the property owner is responsible for remediation. They have to do so in a manner that meets national guidelines and is overseen by accredited independent auditors who confirm that the remediation has been effective and has addressed the pollution.

One of the reasons why remediation of service stations can take a significant period of time is that there has to be ongoing monitoring as to whether or not any plume remains in the subsurface area. That will often entail a series of measurements across an extended period of time to make sure that as watertable levels vary throughout the year, depending on whether or not it rains, there is not any pollution remaining on the site—or, indeed, beyond the site, because obviously pollution can travel from the site in some circumstances. That is the process that is undertaken.

The EPA is ultimately supplied with the assessments that are undertaken by the auditors to ensure that remediation has occurred to the required standard.

**THE CHAIR:** Is there a minimum period or a ballpark number of years that it starts in? Does it just vary depending on the site? Do petrol station sites have a certain period of time? Once it is remediated, I suppose it goes to another portfolio.

**Mr Corbell:** Once remediated, it is remediated, and the site can be used for other uses. As to how long it takes to achieve that point, it depends on the site. It depends on the nature of the remediation needed and ultimately that depends on the extent of the pollution.

**THE CHAIR:** And the testing is done by the EPA but needs to be done by the—

**Mr Corbell:** Testing is undertaken by an independent auditor. The EPA has a list, if you like, of approved auditors, which is informed by the approval of auditors by the New South Wales EPA; we piggyback off their arrangements in terms of approved auditors. It is quite a specialised business, and many of the auditors come from interstate. They are responsible for auditing and signing off on the nature of the remediation and whether or not it has been successful.

**MR COE:** Where are things at with regard to the remediation of the Phillip bus depot?

**Mr Corbell:** Unless Mr Walters knows anything about the old Woden bus depot, I may have to refer you to the ACT Property Group, which manages that site.

**Mr Walters:** The Phillip bus depot is currently in the process of being assessed and remediated. It is in the interim phase; it has got some time to go yet. As the minister has quite correctly outlined, there is a robust process in place for the assessment, remediation and auditing of contaminated sites, including fuel depots. That one would be subject to an independent audit to verify that it is suitable for the redevelopment.

**MR COE:** Have you done any assessments or do you know whether the Belconnen or Tuggeranong depots are on the schedule or due to be assessed for the old fuel tanks?

**Mr Walters:** I think Tuggeranong had some fuel tanks removed some time ago. They were assessed 10, 15 years ago—

**MR COE:** And remediated?

**Mr Walters:** and they were cleaned up. Belconnen, I believe, is still active and it is actually authorised by the EPA. So we have obviously those sites that remain. All service stations are authorised now by the EPA, following some incidents we had some time ago in the Tuggeranong valley with BP Chisholm, and obviously there is a different process for when they become decommissioned and they are remediated. It is fairly consistent nationally now how we deal with those. The requirement for Belconnen is that it is an authorised facility still, because it has quite a significant storage of diesel fuel tanks, and the authorisation for that, as I mentioned earlier, is available on the website.

**MR COE:** What assessments have the EPA done with regard to the Northbourne median—obviously not fuel, but the other contaminants?

**Mr Walters:** Are you talking about the capital metro alignment?

**MR COE:** Just the median, yes, the alignment.

**Mr Walters:** The strip down Northbourne Avenue; right. The EPA have entered into an agreement to provide all the information we have with Capital Metro, which we do with a number of organisations, such as the utilities. Obviously they then develop operating procedures based on the information we have, so it makes sense that the EPA makes that information available to those, in confidence, that they can use to determine areas that may be impacted in that area.

Capital Metro have engaged consultants and auditors. The EPA are requiring that whole area to be audited as part of that process, to ensure the highest level of scrutiny in terms of assessment for the community and for the government, and assurances, obviously, as well. So we are actively working with Capital Metro to provide the assistance we can in undertaking those works.

I believe the last I saw this week was that they are nearing completion of what is called the phase 2 assessment, so they have actually gone and done physical sampling throughout the corridor. I would imagine that that will go shortly to the auditor for review.

**MR COE:** Sure. In the beginning of your answer you said the EPA had agreed to provide all the information that you have to Capital Metro; has that taken place already?

**Mr Walters:** Yes. We signed an agreement earlier this year.

**MR COE:** The information has already flowed across in terms of what you had on file?

**Mr Walters:** Definitely, yes.

**MR COE:** Finally, where is the EPA at with regard to assessments for the Nudurr Drive extension?

**Mr Walters:** I believe that work is being progressed by another government body at the moment. I believe this is in relation to the landfill that is in the area that is going to be assessed. I saw meeting requests where the consultants have been engaged to undertake those works, and I believe that process has just commenced.

**MR COE:** Has the EPA done any testing in recent years?

**Mr Walters:** There have been works done, I believe, by TAMS through Roads ACT. They have done some preliminary assessment. I believe this will follow on from that work as a lot more detailed assessment.

**MR COE:** So when does the host agency do the work as opposed to the EPA?

**Mr Walters:** The EPA is a regulator essentially for contaminated sites, so we set the framework for that. The host agency, if you mean the land custodian generally: as the minister outlined, for a petrol station it is the polluter or the person who owns the site. So the EPAs around the country put in a framework that they must follow in terms of ensuring quality assessment and remediation objectives are met and land use suitability. That is all based on a fairly detailed health and environmental risk assessment that was developed nationally some 15, 20 years ago. So all that mixes in together, hopefully, for an outcome that the land is suitable for what it is being redeveloped for.

That is the key, at the end of the day, to what the auditor is looking at in the EPA: that

a site is suitable for what is proposed, which can add complexity depending on whether there are basements and other infrastructure involved, and that it does not present an unacceptable risk to human health and the environment. But that is very strictly based on national guidelines that have been developed.

Nationally, the assessment of site contamination, the national environment protection measure, was recently upgraded in the last two years to include advice and guidance on asbestos in soils and also on petroleum hydrocarbons. So we have some fairly recent improvements to our regimes in that regard.

**MR COE:** And was the area assessed at the time by the LDA or CIC—the Crace joint venture at the time of Crace being established?

**Mr Walters:** The ACT for some time now has had a very good working relationship with the commonwealth in terms of land transfers, and the commonwealth have agreed to all of the transfers. Lawson would be another one. At Crace there was some experimental work and, I think, a sheep dip on that site that went through that same process. In any case where there is contamination identified, the EPA's contaminated sites environment protection policy details the very robust process, which is consistent with how it is done nationally.

**MR COE:** With regard to the Nudurr Drive extension which is, in effect, in between Crace and Palmerston before it heads sort of north-west, was that not assessed at the time of Crace being established?

**Mr Corbell:** I think that is a question you would have to ask of the land custodian, the government entity responsible for development—

**MR COE:** In terms of actually doing the work, but surely the results are fed into the EPA?

**Mr Corbell:** Only if there is pollution that needs to be remediated.

**Mr Walters:** The site in question is not within Crace.

**MR COE:** I realise that, but—

**Mr Walters:** Crace was assessed. That was a landfill area, so it is a very defined area, a hole in the ground basically. But at the time the assessments were being done, back when Crace was being developed, when Nudurr Drive was proposed—my understanding was Nudurr Drive has been on and off the books from a planning context as to whether the drive would go through.

**MR COE:** If I am correct in my recollection, the loose-fill asbestos was bagged and put in containers, shipping containers, was it not, at that site?

**Mr Walters:** Yes.

**MR COE:** So, if the area of concern is a defined area and it is in shipping containers, surely there has been a breach. How would you know how defined the area is if there

has been a breach?

**Mr Walters:** I am not sure what you mean by breach. The area is extremely defined. The area is actually a separate lease that was issued for where the burial site was and it was packed with three metres of soil. What the studies are confirming is the extent of that cap or that that cap was actually done to that extent. It is not within the proximity of Crace. It is also an inert material. It does not leach through the environment, so it is essentially fixed there almost in the form it was dug up in, in a sense. So the issue is that, similar to any contaminated site, if there is going to be development, like a service station or over an area that has been impacted by a sheep dip, in a greenfields area the EPA's requirements kick in that the land custodian must undertake that assessment and remediation audit to ensure it is suitable for the land use. I think what is going on at the moment with that site is that it is being assessed to confirm the cap—that is, what was believed to have been done back in the 80s.

**MR COE:** So how far away from the road reservation is the lease?

**Mr Walters:** I could not give you those details.

**Ms Ekelund:** We can probably give you a map that shows it. As Daniel has mentioned, there is quite a distinct geographic area in which the asbestos was buried and it is off the alignment, the road alignment of Nudurr, but I am sure we can give you a picture of that.

**Mr Walters:** It is a defined block, so it comes up in the territory plan.

**MR COE:** If it is defined and it is not on the road reservation, why does there need to be this \$10 million contingency for Nudurr Drive for possible remediation of that site?

**Mr Corbell:** You would have to ask the project managers, which is not the environment directorate.

**MR COE:** Sure. So has the environment directorate not required that the defined site, which is not in the road reservation, needs to be remediated for the construction of Nudurr Drive?

**Mr Corbell:** You are asking some specifics about the nature of the works proposed and we are simply not in a position to answer that. I would direct you to the relevant agency.

**MR COE:** No. I am specifically asking for what advice the EPA or the directorate has provided to the agency with regard to—

**Mr Corbell:** As Mr Walters has indicated, the relevant land custodian is undertaking an assessment of the site, and that will inform any future requirements for the management and utilisation of that land.

**MR COE:** Which begs the question: how can you be confident that it is actually a defined area because, if it is a defined area and you are confident it is a defined area, surely no testing outside of that area would be required?

**Mr Corbell:** That is based on our understanding at this time, but it is common sense and prudent practice to go in and physically verify that before any works occur, and that is what is occurring.

**THE CHAIR:** Mr Coe, I think we will move on to the next question from Dr Bourke. You have had a fair go on that one.

**DR BOURKE:** Minister, I would like to turn to the recently released New South Wales and ACT regional climate modelling report project. Can you tell us how it was prepared, what it shows and what the New South Wales government said about it?

**Mr Corbell:** This is the New South Wales and ACT region climate model called NARClIM. NARClIM has been prepared as a result of funding commitments by both the New South Wales and the ACT governments to prepare a specific climate model assessment for New South Wales and including the ACT. This is the first time that there has been specifically commissioned research that allows us to understand the potential impacts of climate change on a scale which is meaningful to both jurisdictions. By that I mean previous assessments around climate change impacts have had to be extrapolated from projections that look at a scale in the hundreds, if not thousands, of kilometres and are national or even global in the scale of their assessment. This model is an assessment on a scale that is in the tens of kilometres so that we can measure variations on a 10-kilometre level scale to better understand the impacts of a warming climate within the ACT, within the region, as well as across the state of New South Wales.

That modelling was undertaken by the University of New South Wales and was a very extensive process involving significant use of supercomputer capacity to properly model a range of climate change scenarios. The assumptions are based on the existing rate of warming continuing, which is significant. Based on business as usual, we know that we are going to exceed a two-degree increase in average global temperatures by the end of this century. It is based on a business as usual assessment. The conclusions are stark and, I have said, disturbing for our city, for our territory and for the broader state of New South Wales. In relation to the ACT the projections were based on near future and far future scenarios. The near future is the period to approximately 2030 and the far future scenario is through to approximately 2070.

The assessments show that in the near future we can expect a substantial increase in the number of days that exceed 35 degrees and also a significant decrease in the number of nights that go below two degrees. By 2070 we are talking about the number of days over 35 degrees increasing by approximately 20 on average each year, an extra 20 days over 35 degrees each summer on average by the year 2070. The number of nights where average temperatures fall below two degrees is 45. Those of us who do not like cold nights might say that is a great thing, but what it does mean is an overall much warmer climate, because obviously if you are seeing warmer nights you are seeing a significant increase in average daytime temperatures as well.

This has enormous impacts for some areas of our biodiversity. For example, for our highland areas which have particularly adapted ecosystems, particular types of species that have adapted to a particular type of cold-cool climate alpine area, it is going to be



very difficult for those ecosystems to stay intact in their current form with that type of change in night-time temperatures. It has very significant implications on snowfall in the Snowy Mountains, for example, and the capacity for there to actually be winter recreational activities in places like the Snowy Mountains when you see that level of warming in night-time temperatures.

Obviously, daytime temperatures are the temperatures that people tend to focus on more. We know that with an increase in the number of severe heat days, days over 35 degrees, if we see an extra average 20 of those by the year 2070 that is pointing to a significant increase in the number of heatwave type events, protracted hot days in a continuous line. We know that has impacts in terms of an increase in fire weather danger but also an increase in human health impacts. The old, the very young and people with serious illness are much more seriously affected by protracted heatwave events and we know that mortality increases during those periods. So we are seeing a direct impact on human health, a direct impact on human mortality amongst particular groups, because of that significant increase.

There are also changes to rainfall patterns predicted in the model. All of the different models—there are actually four modelling scenarios that are outlined in the NARcliM study—confirm a significant reduction in rainfall of up to 25 per cent during spring. It means a hotter and drier spring, perhaps not dissimilar to the spring we have been experiencing this year, a continuation of that pattern, but some shift in rainfall in summer. The models within the report vary on this, but they all conclude that there could be an increase in the summer rainfall. The question mark over that is: what type of rainfall are we going to be seeing? Are we going to see gentle rain like we are used to seeing in spring and autumn or are we going to see more severe rainfall, a sudden, sharp downfall as with storm events, in summer? The models are finding it difficult to predict those scenarios with a similar level of certainty compared to the certainty they are projecting in terms of hot days and warmer nights.

In the ACT, we face some significant vulnerabilities around this. What does it mean? It means hotter daytime temperatures in summer, impacts on the elderly, the young, the sick. It means fire weather is much more difficult—more severe fire weather days coming towards us—and also because of the hotter spring our capacity to manage fire risk particularly through hazard reduction burning will become more limited. You simply cannot undertake hazard reduction burning if you have hot temperatures in spring because the risk of lighting a fire that gets out of control increases significantly. So the way we manage fire risk, for example, and the way we manage impacts on the urban environment are very important considerations out of this modelling.

You asked about what New South Wales are saying. It is worth highlighting that New South Wales are saying that the models suggest that up to a third of the year will be over 35 degrees in some parts of northern New South Wales in the year 2070, based on these projections. So the impact on large areas of New South Wales is very significant.

This should all be put into the context that we are talking about the lifetime of people who are alive today. I think about my teenage son. He is 15 years old. By 2070 he will be an old man, but he will be alive to see these changes occurring, and that is not the sort of future I want for him, my daughter or their children. Those are the issues that

this modelling really highlights to us.

**DR BOURKE:** What about the impact on agriculture in the surrounding hinterland of the ACT, which is an important consideration for our economy?

**Mr Corbell:** An increase in hot temperatures, a decrease in rainfall, which is certainly the prediction, particularly spring rainfall, which is during the peak growing season for many agricultural crops, has a significant impact on overall productivity. I have not looked more closely at the analysis in the surrounding region. Antonio may be able to provide some better information on that.

I would also direct you, if you are interested, to a web portal which New South Wales has established for everyone to access this information. You can drill down to a particular location. If you want to say you live in Yass, go and have a look at what it means for Yass and the surrounding region. You can see what the predictions are. It is a locality based tool that you can use, and it is the same for Canberra. You can do the same for Canberra.

**Mr Mozqueira:** Yes, the minister is correct. The information is now on our website and there is a link to the NARClIM website where researchers and the public can actually go and zoom in on their particular area and define better what the impacts will be for them. There has been no further analysis to this point about the specific impacts on agriculture around the region. However, we are meeting with our colleagues around the region and discussing these impacts in preparing the climate change adaption strategy which will be finalised by the end of 2015—that is, the calendar year. Equally, the projected impacts are not just affecting our culture but, as you have heard from the minister, are impacting all the facets of the sectors across the community: health, emergency services, procurement of housing et cetera. So we are meeting with all of these sectors to identify the impacts and then we are trying to define where the gaps are and the action that is required to mitigate them.

**DR BOURKE:** Minister, one of the useful tools in helping people to understand this kind of change—and you have given us all quite a bit of information already—is homoclines, which is telling us what the climate will be like in a place in 2030 or 2070. Has that work been done by NARClIM yet?

**Mr Corbell:** Like a proxy, trying to explain what the climate is like?

**DR BOURKE:** Yes.

**Mr Corbell:** Not that I am aware of.

**Mr Mozqueira:** No. There is a similar project by, I believe, CSIRO—I can certainly come back with that advice—where if you type in the city and you type a certain epoch or era it will give you what it would be like into the future. For example, Canberra would be somewhere inland that is a lot hotter.

**DR BOURKE:** Like getting closer to Dubbo?

**Mr Mozqueira:** Exactly.

**Ms Ekelund:** I heard Professor Will Steffen suggest that Canberra will be like Cobar by the end of the century.

**DR BOURKE:** That gives us something to think about.

**THE CHAIR:** Mr Wall.

**MR WALL:** I will defer to Ms Lawder.

**MS LAWDER:** I want to ask about directorate staff—the table on page 90. You have fewer staff than in the previous year yet electricity usage increased by 11 per cent. Are you able to explain why that is the case?

**Ms Ekelund:** First of all, as you are probably aware, we have done a lot of work in the directorate to improve our performance, so it was a little surprising and disappointing that we have had an increase in energy consumption. That essentially was because the heating system in the building failed.

**MS LAWDER:** Wouldn't that mean you would use less electricity?

**Mr Corbell:** It meant that during that period less efficient space heaters were utilised to help keep the building warm whilst the main system was repaired.

**MS LAWDER:** How long was the heating out for?

**Mr Corbell:** I do not have that information.

**Ms Ekelund:** I am informed by our CFO that it was three weeks. Certainly, those little fan heaters were being utilised.

**MR COE:** Did the directorate purchase them or were they individually procured by cold members of staff?

**Ms Ekelund:** Individually.

**MR COE:** Are there any issues with staff bringing in heaters like that?

**Ms Ekelund:** We obviously prefer that they not be used, and there is a policy for them not to be used by and large because they can disrupt the thermostat. But if you are having a problem with providing a sufficiently warm environment for your staff to work in, there is a bit of an OHS issue to make sure people are working in a reasonable working environment. So whilst generally we do not support them, of course we thought it was acceptable for staff to use them during this period.

**MR COE:** And they are all off, obviously, now.

**Ms Ekelund:** They are not on today. The system is back to normal, generally. But it is an old building. It is a 20-year-old building and obviously it was suffering from that age.

**MR COE:** Can you definitively say what power was used, given the smart meters and the like that would be installed?

**Ms Ekelund:** We can, yes. We have a pretty sophisticated system across ACT government agencies and premises which shows our energy and water consumption very clearly over time.

**MR COE:** If the heating goes out one day, surely it is only a matter of time before you work out that there is a big issue. So in the course of those three weeks people have gone out, purchased heaters, got them going—

**Ms Ekelund:** Or just brought them in from home.

**Mr Corbell:** Or just brought them in from home.

**MS LAWDER:** If you have one at home.

**MR COE:** Obviously, en masse, to generate so much electricity it is actually more than the entire building's unit?

**Ms Ekelund:** We can show the level of energy use over time through our ESP system. So you can see what the general pattern of consumption is.

**Mr Corbell:** The directorate overall has significantly decreased its electricity use. Compared to the baseline year of 2006, prior to substantial upgrades being implemented over a period of time—

**MR COE:** It is primarily lighting, though, isn't it?

**Mr Corbell:** Lighting but also HVAC controls and effective HVAC management. The electricity use now is 70 per cent of what it was in 2006. So the directorate has achieved long-term savings in electricity consumption. That has been through changing to LED technology for lighting; it has been through improving the management of cooling temperatures in summer, so having the cooling set at a higher level in summer—that is, at a slightly warmer temperature in summer; decreasing the level that the building is heated to in winter; the installation of programmable lighting; programmable urns to manage electricity use associated with the heating of hot water for drinking; the installation and use of a water tank for some of its on-site irrigation; and programs to educate staff about shutting down of IT equipment overnight and during weekend periods. All of that has seen a very substantial reduction in the directorate's long-term energy use, down 30 per cent compared to the baseline year of 2006.

**MR COE:** How much did it cost to fix the heater?

**Mr Corbell:** We would have to take that on notice, Mr Coe.

**MR COE:** Is that a reportable contract?

**Ms Ekelund:** The premises that we are in are managed by the Property Group, so it is part of our tenancy agreement that these matters be fixed.

**MS LAWDER:** I have a supplementary. According to the table, your renewable energy electricity use was down 16 per cent. I presume, but I could easily be wrong, that that relates to your centralised green power purchasing; is that correct?

**Mr Corbell:** It is as a result of government policy right across all directorates to redirect a certain percentage of funding associated with green power purchase towards the establishment of the carbon neutral government fund—that is, to a centralised loan facility within government to provide finance for in-government projects to improve energy efficiency in government offices, rather than continue simply to purchase green power. If you like, we can go into a bit more detail about the carbon neutral government fund and how it operates and, in particular, how EPD have access to funding under that fund.

**MS LAWDER:** I am interested in the green power purchasing, five per cent of the ACT government's energy consumption for 2013-14. Do you plan to review that amount? Will it remain at five per cent?

**Mr Corbell:** The government have said we will review that amount as we approach the year 2020. We have redirected funding associated with the government's green power purchase to focus on energy efficiency in ACT government agencies, because the cheapest electricity is, of course, the electricity we do not use. So the government's focus is on using less electricity overall and, indeed, less gas across all of its operations.

The carbon neutral government fund received applications for four projects in 2013-14 worth \$1.6 million. Two projects worth a total of \$933,390 have been commenced. The third is expected to commence later this year and the fourth was funded in August this year. To give an example of some of the projects that have been funded, ACT Property Group has received funding for HVAC building management system upgrades to three government sites, with a loan of \$60,000 and a payback period of two years. The way it operates is that the directorate are loaned that money from the fund and then must pay back the principle. They are allowed to keep any savings that are achieved as a result of the upgrade. So those savings are then factored into the directorate's budget.

With respect to some larger loan amounts, Property Group has received funding of \$1.764 million for LED lighting retrofit at 28 government buildings. This will reduce electricity use by up to 30 per cent across those 28 government buildings with a payback period of four years. Equally, the Community Services Directorate has received funding of \$843,000 approximately for energy efficient lighting controls and mechanical upgrades in 15 community facilities, including government owned buildings that house community hubs and youth centres. That is in 15 sites across the ACT and has a payback period of four years.

Those are the types of projects that are being funded through this redirection of a proportion of green power purchase moneys into energy efficiency, and that is delivering ongoing savings both to the directorates in terms of their budgets and

directly to taxpayers in terms of reduced consumption.

**MS LAWDER:** Are you able to tell me approximately what percentage of the ACT government's energy consumption this directorate would consume?

**Mr Corbell:** We can do that. I would have to take it on notice. Overall, ACT government operations contribute approximately five per cent to the total economy-wide emissions of the ACT.

**MS LAWDER:** I am just interested in the directorate.

**Mr Corbell:** This directorate would be a pretty small part of that, but I am happy to give you that analysis. We are now able to do that as the government has invested in the implementation of what is called the enterprise sustainability platform, which allows us to monitor energy consumption—indeed resource consumption more broadly—across all ACT government sites on a very regular interval basis. It is a very effective tool that has only just been completed in the last six months or so. It is now giving us for the first time a very accurate picture of consumption across all sites. This is allowing building managers within directorates, asset managers within directorates, to drill down with a much higher level of detail to see how individual sites are performing in their electricity use, gas use, water use and target actions, to improve efficiency in resource consumption at all those sites.

**MR COE:** Does that include vehicles in the five per cent, and also the enterprise system?

**Mr Corbell:** The enterprise sustainability platform measures the performance of utility supplies—electricity, gas and water. Emissions from transport fuels are captured in the overall ACT greenhouse gas inventory.

**MR COE:** For instance, ACTION buses: is that included in the five per cent?

**Mr Corbell:** Yes.

**THE CHAIR:** I have a question to do with the Conservator of Flora and Fauna. I am interested in the action plans that have been put in place through the Nature Conservation Act. I understand that a little eagle has been spotted in west Belconnen. I wondered if you were aware of this. Having regard to the little eagle particularly, how are these endangered and vulnerable species in the ACT mapped and how are they monitored under these plans?

**Mr Corbell:** I will ask the conservator to start and provide some more detail.

**Dr Kitchin:** Yes, there was a nest site for the little eagle mapped near the Strathnairn property in west Belconnen. It is added to a database. Our research unit, when it is informed of any new threatened species, maps it using GIS technology so that we have that data available. If it can be publicly released we put it on the government's ACTMAPi mapping server, so we do make as much as we can available. If it is sensitive data and there is any risk of tampering with the site—for example, orchid data—we will either release it in a general form or we will just use it for management

purposes.

**THE CHAIR:** Using the example of the little eagle—I do not know whether it has a name yet—out in west Belconnen, how is it monitored? Is it monitored daily, weekly or monthly and is there somebody that is given that job? I do not imagine there are too many of this particular bird around Canberra.

**Dr Kitchin:** You are right; this species is quite rare. We have a partnership with the University of Canberra to look at this species in some more detail. It has also been supplemented with some funding from the Riverview development group, because it is in that region. The way that we are monitoring at the moment is visually, but we have invested in the past in putting radio tracking collars on wedge-tailed eagles, to try and get more information about eagles in general, which are generally under studied across the whole of Australia and internationally. So we are trying to build up the knowledge base, but it is notoriously difficult when there are so few.

**THE CHAIR:** What are the fines for any sort of disruption to a nesting site, if it is a known nesting site, or any kind of damage that is done to any of these endangered species? Does it vary?

**Dr Kitchin:** There is a fining system under the Nature Conservation Act. That has been reviewed with the new act. The exact fine for disturbing a nest—

**Mr Corbell:** It would depend on the nature of the activity, whether it was taking an item or whether it was deliberately destroying it. It would depend on what the activity was, but there are quite substantial fines now set out in the new nature conservation legislation that was adopted by the Assembly in its last sitting.

**THE CHAIR:** Any questions?

**DR BOURKE:** I would probably go back to environment protection and water regulation.

**THE CHAIR:** We have got five more minutes. Has anyone got a question for the Conservator of Flora and Fauna? Ms Lawder?

**MS LAWDER:** I note that on page 252 you mentioned that the AFP had targeted illegal motorcycle riding and that AFP officers are appointed as conservation officers. Do you know what areas they targeted illegal motorcycle riders in—what suburbs?

**Dr Kitchin:** I will leave that for conservator liaison.

**Ms McKeown:** I am the liaison officer for the Conservator of Flora and Fauna. The AFP officers that have been appointed as conservation officers are the rural patrol. They do Namadgi, Pierces Creek and the non-urban areas. They do not look at motorcycle riding in urban areas; that is just the normal AFP.

**Mr Corbell:** I can advise you, Ms Lawder, from my knowledge in the other portfolio—I note that I am no longer responsible for that portfolio, but I can in general terms indicate it—that AFP do receive complaints from time to time about illegal trail

bike riding on public land in a range of areas around the ACT. I think there have been some instances of it in the past few years in Belconnen, and also in Tuggeranong. Police have sought to tackle that problem as best they can, noting that it is very difficult to catch people in the act. Police have targeted particular areas, including using their own trail bike capability to patrol particular areas to try to both maintain a better presence where it is needed and also detect people where they can in relation to that activity.

There have also been responses by other government agencies where appropriate—for example, construction of bollards and other fences or gates, where that is practical, to try and address this issue.

**MS LAWDER:** In the rural areas, were there any arrests or cautions?

**Ms McKeown:** I do not know. You would have to talk to the AFP about that. They do not always share information, depending on what act they are using. Sometimes it is better for them to use their own legislation if it is an illegal, unlicensed rider or something like that.

**THE CHAIR:** Dr Bourke, you had a question?

**DR BOURKE:** Yes, going back to output class 6, if that is all right.

**THE CHAIR:** Yes; sure.

**DR BOURKE:** Thank you. My question is about noise management. Page 71 tells us about the development of noise management plan guidelines and the campaign for people to be more aware of the noise they make, possibly upsetting their neighbours. Could you tell us more about that, minister?

**Mr Corbell:** Yes. The EPA is re-running a campaign that was very successful a few years ago, called “Your noise is not their choice”, to remind Canberrans about the impact of noise, particularly during the summer months. Obviously, in summer we all tend to have our windows and doors open a lot more, so noise from neighbours can be more intrusive than it is at other times. People are also more likely to be outside having a party at night in the summer months than they are in the winter months, so noise associated with loud music or noise associated with the use of air conditioners can become more problematic during the summer months.

The EPA have responded to that, to what they know is a traditional increase in the number of complaints about noise in the summer months, with an education campaign. The campaign involves both material online and also short ads screened through movie cinemas to help raise awareness about the impact of noise and to encourage residents in the first instance to talk with their neighbours and engage with their neighbours about concerns about noise. That is both in terms of talking to them if you are proposing to have a noisy event and also, if you are being impacted by noise, trying to talk to them to resolve the problem in that way. Then, of course, the campaign is reminding people that they can raise the issue with the EPA if they are unable to seek resolution through other means.



I am pleased to say that the EPA has recorded a substantial drop in the number of complaints, coinciding with its conduct of these campaigns in previous years. It would appear that awareness raising does assist in reducing the number of formal complaints that go to the EPA, because people are being reminded to try and resolve the matter informally first. That would appear to be having some success. We are hoping to replicate that this year with the campaign that is running over the summer months.

**DR BOURKE:** Thank you. Further, are there noise controls on night-time commercial waste collection in residential areas and suburban shopping centres? And is the 1998 ACT commercial waste industry code of practice under the EPA under review?

**Mr Corbell:** Perhaps Mr Walters can help you with that one, Dr Bourke.

**Mr Walters:** As you have correctly outlined, the document that governs noise for commercial waste collection is the code of practice under the act. We have not experienced a significant number of complaints in relation to commercial waste collection. To answer your question, in the changing nature of our city—and it has been some time since that waste code was looked at—the government is looking at a whole suite of things in terms of noise regulations.

We are currently undertaking a study of the noise zone standards. We would expect that when we go to community consultation in relation to that, the issue of garbage collection may be raised. We will be more than happy to look at that.

We work closely with industry and the community on the complaints that we receive, and the code of practice has been very effective. As the minister outlined, the first action recommended under that is to contact the company involved. We normally can resolve that between the company and the complainant. There have been greater urban densities around our urban areas and some challenges in relation to that. I had a complaint come in just last week, and the facility was quite happy to look at trying to change the times and company in relation to that. The mechanism has worked effectively over time.

**DR BOURKE:** How many complaints are you getting?

**Mr Walters:** In the annual report, I am not sure if we articulate the ones that come from waste complaints, but it would be fewer than 10 a year. We do not get a lot of those types of complaints, as the minister said, as the winter months warm up. Predominantly, it is music, power tools and people getting out and doing things in the garden. If you looked at it statistically over the months, you would see a natural curve down in winter, when everyone closes their windows, and, logically, it goes up in summer. As the minister outlined, that is where we find it most effective to target our noise campaign.

Since the campaign was launched in 2009, we have seen approximately a 30 per cent decrease in complaints. Through our other education campaigns, along with that one, it seems that they have been effective for the government in reducing complaints.

**DR BOURKE:** You do not see an increase resulting from increased commercial

activities occurring in residential areas?

**Mr Walters:** I think that is one of the challenges for us moving forward. We want a vibrant city, and mixed use will obviously present challenges. There is not a lot of residential in the city at the current time. As the authority, I think we will have to look at those things as we get greater urban intensification, because those issues will come up.

The issue with garbage collection in commercial areas, obviously, is that we do not want them in residential areas. Unfortunately, there is a certain amount of garbage that the city generates and that we have to collect. For safety reasons and the amenity of the broader public, we try and keep the garbage trucks in areas where there are not that many residential sites, but it will be a challenge for us heading into the future.

**THE CHAIR:** Thank you. And we are out of time on this subject. Just before we change over to the commissioner, I remind members that any supplementary questions should be lodged with the committee office within three days of this hearing and that responses to questions on notice and supplementary questions related to this hearing should be provided to the secretary by Monday, 2 February.

We ask the Commissioner for Sustainability and the Environment to come forward. Good afternoon. Before we start, I would like to make sure that you have read the privilege statement before you. Could you just confirm that you understand the privilege implications of the statement?

**Mr Neil:** Yes.

**THE CHAIR:** I remind you that the proceedings are being recorded by Hansard and webstreamed and broadcast live. Do you have an opening statement that you would like to make, commissioner?

**Mr Neil:** Yes, thank you, Madam Chair. I know time is quite tight, so I would just like to let you know what we have been doing in the last 12 months. We have had a couple of fairly significant reports that we have had to prepare. One was the implementation status report for AP2, which is due to the minister by the end of this year. We did quite a bit of work on that earlier in the year. We have finished with the framework for the state of the environment report and we are now to the point where we are actually starting to write it. We have got a data collection and analysis plan that is currently being implemented.

We also worked with a couple of ecologically sustainable development experts and had a couple of workshops to try and work out how you could practically apply that in the ACT. They provided a report with input from both government officials and academic and subject matter experts. I guess the follow-on from that for us is actually how to get it into the political process and into the decision-making process.

We continue to engage with the directorates and key community groups, schools and universities. We celebrated our 20th anniversary, which I think was on 1 July last year, or 2 July. We have prepared a range of fact sheets for students, to try and work with the younger generation. We have had, I think, three complaints in the last year. We

finalised one and we still have one ongoing.

Looking to 2014-15, I think our focus will be on delivering that state of the environment report. Thank you very much.

**THE CHAIR:** Thank you, commissioner. I had a question regarding the complaint about cat curfew areas and the report that you did on that. That was finalised in June. This is a sensitive area for cat owners and bird lovers and all people in the ACT, really, from both sides of the spectrum. What do you see as the next stage in that process now that you have handed a report down?

**Mr Neil:** Part of the response has already been started. They have formed, for want of a better word, a cat committee within TAMS where they have agreed to work with the Conservation Council on an education program. I think the biggest difficulty is the expectation that we can just catch the cats. It is not that easy. I think the biggest effect it can have is to educate the people that own them and try to have cats contained on site.

I think they have held three—certainly two—separate exercises. From what the Conservation Council have said, they were quite successful. I know there is talk of perhaps making the whole of the ACT a cat containment area into the future. I am not unsympathetic to that, but you certainly would need time to allow the community to come along with you.

I was away at the time—I was on leave—and by the time I got back, there was quite a bit of press around cat containment, much more so than I would have expected. I think the outcome was quite good. As for the recommendations from my report to the Director-General of TAMS, they have actively started to implement those, which includes that public education program.

**THE CHAIR:** Thank you. Questions, Mr Coe?

**MR COE:** I am happy to go to Ms Lawder.

**THE CHAIR:** Ms Lawder.

**MS LAWDER:** Thanks. You mentioned in your opening statement that you had, I think, a status report due at the end of this year. Is that on track? It is not that long until the end of the year.

**Mr Neil:** It is very much on track. It is currently at the printers, so we hope to deliver it to the minister, either an advance copy later on today or the final copy next week or early in the new year. But certainly the minister will have an advance copy of it.

**MS LAWDER:** What is the process of that? It goes to the minister. Does it then become a public document?

**Mr Neil:** The minister has to respond to that report next year as part of action plan 2. The ownership of the report is always a little difficult. If it is a state of the environment report or a special report, there is no question; they have to be tabled.

Reports like this are slightly different in that there is no obligation under the Commissioner for Sustainability and the Environment Act for the minister to table them. Set out in AP2, the minister is to respond to the report in his next annual report, so that would be next year.

**MS LAWDER:** So, in effect, within six months almost by the time you start?

**Mr Neil:** He has just put out one report on climate change. That was, from memory, about three weeks ago. So the next one may be December, but I have not spoken to the minister about the timing. I do not think it will last that long; I think he will probably respond sooner, but that is obviously a matter for him.

**MS LAWDER:** Thank you.

**MR COE:** You could choose to make it public, couldn't you?

**Mr Neil:** I do not think so. I have come across this issue once before with a report that was done by my predecessor, I think, and the legal advice was, "They're specifically two reports." That is, the state of the environment report and any special report have to be tabled by the minister. The other reports, the ownership of those is not clear. My experience has been, with any that I have had previously that have been a little unclear, that the minister has tabled them anyway.

**MR COE:** As a statutory office holder, your reports have been tabled by the minister, but they are still your reports; you are still the author.

**Mr Neil:** Yes.

**MR COE:** So for this report, you are still the author, as a statutory office holder.

**Mr Neil:** Yes.

**MR COE:** So are you not at liberty to choose what you do with your reports?

**Mr Neil:** I wish the answer was far more clear cut, but the legal advice around the reports that I had was that, with the state of the environment report and special reports there is no question—they go to the minister and they are tabled so that they become public documents. With the other reports that I do that are not statutory, whilst I would like them to be on the web, and I suspect that will be the case—I have no reason to believe otherwise—the ownership of the report is actually questionable.

**MS LAWDER:** In the annual report, on page 123, it says:

The Office of the Commissioner for Sustainability and the Environment will, for the first time in 2014 (and subsequently in 2017 and 2020), publish periodic implementation status reports on the implementation of the ACT Government climate change policies.

To me that sounds like you are going to publish it and make it available.

**Mr Neil:** And I would expect that that will be the case. I have no reason—

**MS LAWDER:** It does not say “will provide a report to the minister”. It says “will publish”.

**Mr Neil:** That will be my intention, but certainly it will not be without talking to the minister first. I have absolutely no reason to believe that it would not be published. I have looked at it again purely for that reason. Would I put it on the web now? The legal advice was a little bit ambivalent.

**MR COE:** Yes, I can understand that: the advance copy and giving the minister the right to respond. In the same way, the Auditor-General will prepare recommendations, send them to the minister for their response and then include the response in the report.

**Mr Neil:** Yes.

**MR COE:** But there is still no doubt that at some point the Auditor-General is going to publish those reports. You are not able to give a firm commitment that you will give the minister an opportunity to respond but—

**Mr Neil:** And then publish the report?

**MR COE:** And then publish, yes, or perhaps seek advice—

**Mr Neil:** I would seek a little bit more advice; that is all.

**MR COE:** Yes.

**Mr Neil:** Yes. I do not see any issue. It has been my experience that most of the work done by independent statutory authorities is made public.

**MR COE:** Yes, because if the legal advice is that, in effect, only reports that are explicitly named can be published by the statutory office holder, that would have pretty serious ramifications right across the government.

**Mr Neil:** Yes. I have never had any reason to worry about it, apart from the one report that I sought some clarification on. That was the answer I got.

**MR COE:** Potentially it is a storm in a teacup regarding this particular issue, but if the principle was across the government it could be problematic.

**Mr Neil:** Yes, I agree.

**THE CHAIR:** We have got time for one more question. Anybody?

**DR BOURKE:** Thank you, chair. Mr Neil, you initiated a project focusing on what ecologically sustainable development means in a practical day-to-day sense. How is that coming along?

**Mr Neil:** It was quite a challenge in and of itself. Directorates are supposed to report

on ecologically sustainable development in their annual reports. That probably means many things to many people. So we had some work done with Dr Gerry Bates and Chief Justice Brian Preston from the New South Wales Land and Environment Court. There was quite some expertise at the table. They managed to come up with four recommendations as to how we might progress ESD.

We would like to use the current triple bottom line approach by governments, as it is fairly well accepted. I think the challenge is to have equal consideration given to the social, the environmental and the economic. Invariably there are trade-offs, and we all accept that. It would be nice to see that those were a little more transparent.

So part of the ongoing challenge now for me is to look at what might be sustainability indicators, see whether the directorates are in agreement and talk to them about what may indicate sustainability. I am very aware that we do not want to create another burden of reporting. I would like to see it as a whole-of-government approach rather than directorate by directorate so that you get a more complete picture of how the ACT government is implementing ecologically sustainable development. As part of that, there will be quite some conversations with the directorates about what they think that is, because it is different things to different people, which is why I think a whole-of-government approach would be more reflective of what is actually done as a whole.

**THE CHAIR:** We are out of time now. Thank you for your very brief time here before the committee today, commissioner.

**Mr Neil:** My pleasure.

**THE CHAIR:** Members, I remind you all that if you have any supplementary questions to get them to the committee office within three days. I do not think you took any questions on notice, commissioner. Supplementary questions are to be submitted by Monday, 2 February. On that note, we will finish our hearing for today.

**The committee adjourned at 5.04 pm.**